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DARIEN PUBLIC SCHOOLS HINDLEY, HOLMES, & ROYLE ELEMENTARY SCHOOL CONCEPTUAL FLOOR PLAN LAYOUTS STUDY

DATE: February 19, 2021

RE: **DRAFT** STUDY UPDATE

INTRODUCTION

Darien Public Schools retained the services of Northeast Collaborative Architects, LLC (NCA) to provide a Feasibility Study for the following:

Initial study scope:

- Removal of portable classrooms at Hindley, Holmes, and Royle Elementary Schools
- Enhance Library facilities to provide a “Learning Commons” a flexible learning environment specific to grade levels, and review and implement elements of the Libraries Re-imagined effort at the following schools:
 - Hindley Elementary School*
 - Holmes Elementary School*
 - Royle Elementary School*
- *This study extract includes only the three elementary schools

Expanded study scope:

- Incorporate developing DRAFT Educational Specifications for comprehensive improvement projects, including results of classroom size and count study.
- Incorporate proposed infrastructure long-range capital improvements at the three elementary schools. These infrastructure long-range capital improvements include major mechanical, electrical, plumbing and technology systems renovations, exterior building enhancements, and various site work. They include both line item improvements from the district’s 5-year plan, and some remaining items from the 2016 KG&D Master Plan report.
- Additional review with each school principal
- Options were considered for portable classroom removal at the three elementary schools should also study the implementation of the “Learning Commons” model in a comprehensive and cost-effective manner. These conceptual plans reflect the selected option at each school, considered to be the most comprehensive and cost-effective to accomplish the goals indicated herein.

Major tasks included the following:

- Prepared space-planning options associated with comprehensive portable classroom removal and “Learning Commons” renovations at



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each of 3 elementary schools, Hindley, Holmes, and Royle, in the form of conceptual diagrammatic plans. Multiple options were considered for each school, and the plans included reflect the selected option for each school.

- Further develop plans to include space allocations per developing DRAFT Educational Specification for more comprehensive improvement projects, considering the recent new Tokeneke Elementary School and the proposed Ox Ridge Elementary School.
- Analyze and update renovation plans based on the results of the classroom size and count study prepared in late 2020 to achieve more appropriate classroom size and count for each school. This study was based on the most recent Enrollment Projections provided by Milone and MacBroom in 2020.
- Confirm that all program elements are included, checked with Ed Spec and confirmed by each school principal
- Provided an opinion on the benefits and drawbacks of each option, and an opinion on a phased approach to addressing the most urgent needs, in a manner conducive to optimal learning environments.
- Cost Analysis to assist the school district in incorporating potential capital request for FY22 and beyond.

METHODOLOGY AND APPROACH

The initial step for the study involved meetings with various Darien Public Schools Staff to review and understand the issues, goals, and objectives for this study. Additional meetings specific to each school, which included principals, librarians, technology, and a review of the Libraries Re-Imagined effort were arranged during February through April.

NCA also visited each school to review existing conditions, investigate building systems and issues, compare existing plans to actual conditions, and gather an overall understanding of each school's project scope. Delays due to COVID-19 caused a setback to the original schedule. NCA revisited the issues at a meeting in June to consider the comprehensive school needs as expressed by the school principals.

Subsequent to the meetings, NCA engaged in further review of existing documents, developed programming, strategies and design concepts for each school including:

- Thorough review of existing conditions plans
- Determined the architectural and engineering implications of the goals, objectives, and physical space issues and needs
- Prepared Architectural Space Programs and Room-by-Room Data sheets for the specific areas at Hindley, Holmes, and Royle Elementary Schools
- Expanded the detail of the Space programs into an overall Space Relationship (bubble diagram) for the typical Darien Public Schools Library Media Center "Prototype"



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- Incorporation of the results of the classroom size and count study prepared in late 2020, which, in conjunction with direct input from the district to establish the overall classroom count required for each school.
- Developed and refined conceptual plans for Hindley, Holmes, and Royle Elementary Schools. Options were developed and selected concepts were developed further.
- This expanded study develops more comprehensive improvement project conceptual floor plans.



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DESIGN CONCEPT SUMMARY

Hindley, Holmes, and Royle Elementary Schools

The Major Comprehensive Needs at all three schools have been identified as follows:

- Eliminate Portables
- Consider new or significant renovations to Library spaces
- Provide for adequate classroom count and size, especially at Grades 3 – 5 classrooms
- Infrastructure capital improvements plan (NOTE: the addition of this scope to the prior study has a significant impact on the cost parameters)
- Site work improvements, including enhancements to vehicular circulation with revisions to parking and drives.

General Classroom Counts:

- Hindley: 24
- Holmes: 24
- Royle: 22

Proposed Timeframe:

- Each project's general timeframe:
 - Design: approximately 1 year including town approvals
 - Construction: approximately 2 years including initial phasing, temporary work, demolition and/or abatement activities, advanced procurement of materials, phased renovations, encompassing a 14-month active construction cycle for new additions and certain renovations, beginning in June (end of school year) and completing in August of the following year, then integration of systems, close-out, and commissioning.
 - Each project would have a "3-year" duration, with some variance based on extent of scope and complexity of scale.
- Projects can be phased, either in design and construction, or only in construction, if necessary



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Hindley Elementary School

- Three portable classroom buildings are removed
- Existing Library to be demolished
- Highest priority due to # of portables in use, their general condition and large distance from the main school building, existing library infrastructure challenges, need for/use of programs being relocation/spaces being vacated

Design Concept:

- New Library / Media Center / Learning Commons addition
- New General Music, Storage, & Instrumental Music rooms addition
- 2 new classrooms in addition (second floor)
- Renovations of first and second floor to include expanded classrooms, World Language and IDEA Classrooms, other spaces including Special Ed, SRBI, Speech & Psychology offices, Staff Workroom
- Reconfiguration of DLC classrooms (being relocated to Ox Ridge Elementary School in Fall 2022) to general classrooms
- Infrastructure Renovations and Improvements from the district's capital plan and remaining items from the KG&D Master Plan, including enhancements to mechanical, electrical, plumbing and technology systems
- Site drive improvements, including the potential extension of the bus loop and study of a new drive exiting only onto Route 1 (pending further study).

Area Summary:

Approx. 4,000 SF net increase (10,300 SF addition; 3,000 SF demo; 3,300 SF removed portables), renovations throughout, including at former DLC classrooms.

General Project Cost Parameters (Note: INCLUDES the incorporation of Infrastructure Renovations and Improvements from the district's capital plan and Site Drive Improvements, pending further study)

Building Addition:	\$4,500,000 - \$4,750,000
Demolition and Site Improvements:	\$150,000 - \$200,000
Portable Removals and Site Imp.:	\$100,000 - \$100,000
Major Programmatic Renovation:	\$3,250,000 - \$3,500,000
Minor Programmatic Renovation:	\$250,000 - \$250,000
Infrastructure Renovations and Imp.:	\$6,750,000 - \$7,000,000
<u>Site Drive Improvements:</u>	<u>\$500,000 - \$750,000</u>
TOTAL (including soft costs):	\$21,700,000 - \$23,170,000



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Holmes Elementary School Concepts

- Two portable classrooms are removed
- Renovations to Library/Media Center
- High priority due to infrastructure needs of the building and allocation, size, and exterior access of ancillary learning spaces

Design Concept

- New 2-story addition with General Music, Storage, and Instrumental Music Rooms, World Languages, two general classrooms, and SRBI
- Classroom areas converted to relocated IDEA and OT/PT and Special Education spaces
- Library/Media Center/Learning Commons remains in place, with demountable partition interior classroom removed, and space reconfigured to meet intent of the prototype
- Infrastructure Renovations and Improvements from the district’s capital plan and remaining items from the KG&D Master Plan, including enhancements to mechanical, electrical, plumbing and technology systems
- Site drive & parking improvements, including the potential expansion of parking on the north side of the site (pending further study).

Area Summary:

Approx. 5,800 SF net increase (7,500 SF addition; 1,700 SF demo; renovations at various portions of building and Library/Media Center)

General Project Cost Parameters (Note: INCLUDES the incorporation of Infrastructure Renovations and Improvements from the district’s capital plan and site drive and parking improvements, pending further study):

Building Addition:	\$3,500,000 - \$3,750,000
Portable Removals and Site Imp.:	\$125,000 - \$150,000
Major Programmatic Renovation:	\$750,000 - \$1,000,000
Minor Programmatic Renovation:	\$750,000 - \$1,000,000
Infrastructure Renovations and Imp.:	\$1,000,000 - \$1,250,000
<u>Site Drive & Parking Improvements:</u>	<u>\$750,000 - \$1,000,000</u>
TOTAL (including soft costs):	\$9,625,000 - \$11,410,000



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Royle Elementary School

- Three portable buildings are removed
- Existing Library - Media Center to be demolished
- ELP Program will relocate to Ox Ridge Elementary School in Fall 2022
- High priority due to # of portables in use, existing library infrastructure challenges, need for/use of programs being relocation/spaces being vacated, factoring in lower enrollment and more common spaces than other schools

Design Concept:

- Existing Classrooms 8 through 11 to be demolished
- New Library / Media Center / Learning Commons addition
- New General Music, Storage, & Instrumental Music rooms addition
- 4 new classrooms in addition
- Renovations of first and second floor to include expanded classrooms, World Language and IDEA Classrooms, other spaces including Special Ed, SRBI, Speech & Psychology offices, Staff Workroom
- Reconfiguration of ELP classrooms (being relocated to Ox Ridge) general classroom, IDEA and World Languages
- Infrastructure Renovations and Improvements from the district's capital plan and remaining items from the KG&D Master Plan, including enhancements to mechanical, electrical, plumbing and technology systems
- Site drive & parking improvements (pending further study)

Area Summary:

Approx. 1,000 SF net increase (12,500 SF addition; 9,000 SF demo; 2,500 SF portable removal) renovations throughout, including at former ELP classrooms, internal ramp at floor level change)

General Project Cost Parameters (Note: INCLUDES the incorporation of Infrastructure Renovations and Improvements from the district's capital plan and site drive & parking improvements, pending further study):

Building Addition:	\$5,500,000 - \$5,750,000
Demolition and Site Improvements:	\$350,000 - \$400,000
Portable Removals and Site Imp.:	\$175,000 - \$200,000
Major Programmatic Renovation:	\$4,250,000 - \$4,500,000
Minor Programmatic Renovation:	\$500,000 - \$500,000
Infrastructure Renovations and Imp.:	\$2,500,000 - \$2,750,000
<u>Site Improvements:</u>	<u>\$250,000 - \$500,000</u>
TOTAL (including soft costs):	\$18,935,000- \$20,440,000



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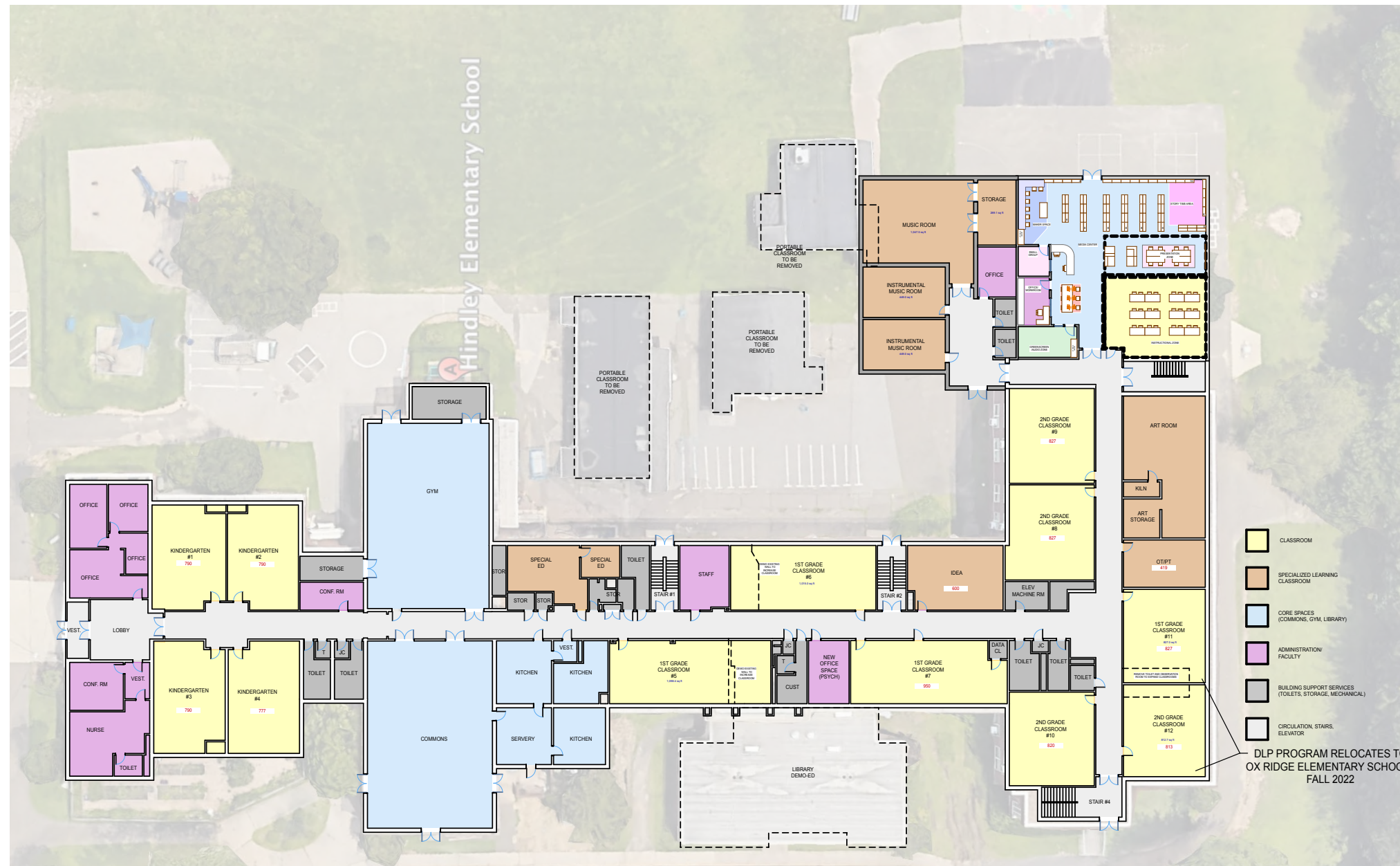
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APPENDIX 1: CONCEPTUAL FLOOR PLAN LAYOUTS

HINDLEY ELEMENTARY SCHOOL

DRAFT: 2-19-21



- GENERAL CLASSROOMS
- SPECIALIZED LEARNING (ART, COMPUTER LABS)
- CORE SPACE (AUDITORIUM, GYM, CAFETERIA, MEDIA CENTER)
- ADMINISTRATION/FACULTY
- BUILDING SUPPORT SPACES (TOILETS, MECHANICAL, STORAGE)
- CIRCULATION, STAIRS, ELEVATORS

- CLASSROOM
- SPECIALIZED LEARNING CLASSROOM
- CORE SPACES (COMMONS, GYM, LIBRARY)
- ADMINISTRATION/FACULTY
- BUILDING SUPPORT SERVICES (TOILETS, STORAGE, MECHANICAL)
- CIRCULATION, STAIRS, ELEVATOR

PROPOSED FIRST FLOOR PLAN

SCALE: 1" = 20'

EXISTING ENROLLMENT (2020) - 429 STUDENTS
PROJECTED ENROLLMENT (MAX) - 441 STUDENTS

1ST FLOOR - 36,464 SQFT
PORTABLE CLASSROOMS - 3,333 SQFT
2ND FLOOR - 18,778 SQFT
EXISTING GSF - 58,575 SQFT

1ST FLOOR - 36,464 SQFT
REMOVED PORTABLE CLASSROOMS - (0) SQFT
LESS DEMO-ED MEDIA CENTER - (2,974) SQFT
FIRST FLOOR ADDITION - 7,935 SQFT
2ND FLOOR - 18,778 SQFT
2ND FLOOR ADDITION - 2,298 SQFT
PROPOSED GSF - 62,501 SQFT



PROPOSED SECOND FLOOR PLAN

SCALE: 1" = 20'

HOLMES ELEMENTARY SCHOOL

DRAFT: 2-19-21



- GENERAL CLASSROOMS
- SPECIALIZED LEARNING (ART, COMPUTER LABS)
- CORE SPACE (AUDITORIUM, GYM, CAFETERIA, MEDIA CENTER)
- ADMINISTRATION/FACULTY
- BUILDING SUPPORT SPACES (TOILETS, MECHANICAL, STORAGE)
- CIRCULATION, STAIRS, ELEVATORS

EXISTING ENROLLMENT (2020) - 433 STUDENTS
 PROJECTED ENROLLMENT (2021) - 451 STUDENTS

1ST FLOOR - 33,446 SQFT
 PORTABLE CLASSROOMS - 1,670 SQFT
 2ND FLOOR - 21,801 SQFT
 EXISTING GSF - 56,917 SQFT

1ST FLOOR - 33,446 SQFT
 REMOVED PORTABLE CLASSROOMS - (0) SQFT
 FIRST FLOOR ADDITION - 3,767 SQFT
 2ND FLOOR - 21,801 SQFT
 2ND FLOOR ADDITION - 3,767 SQFT
 PROPOSED GSF - 62,781 SQFT

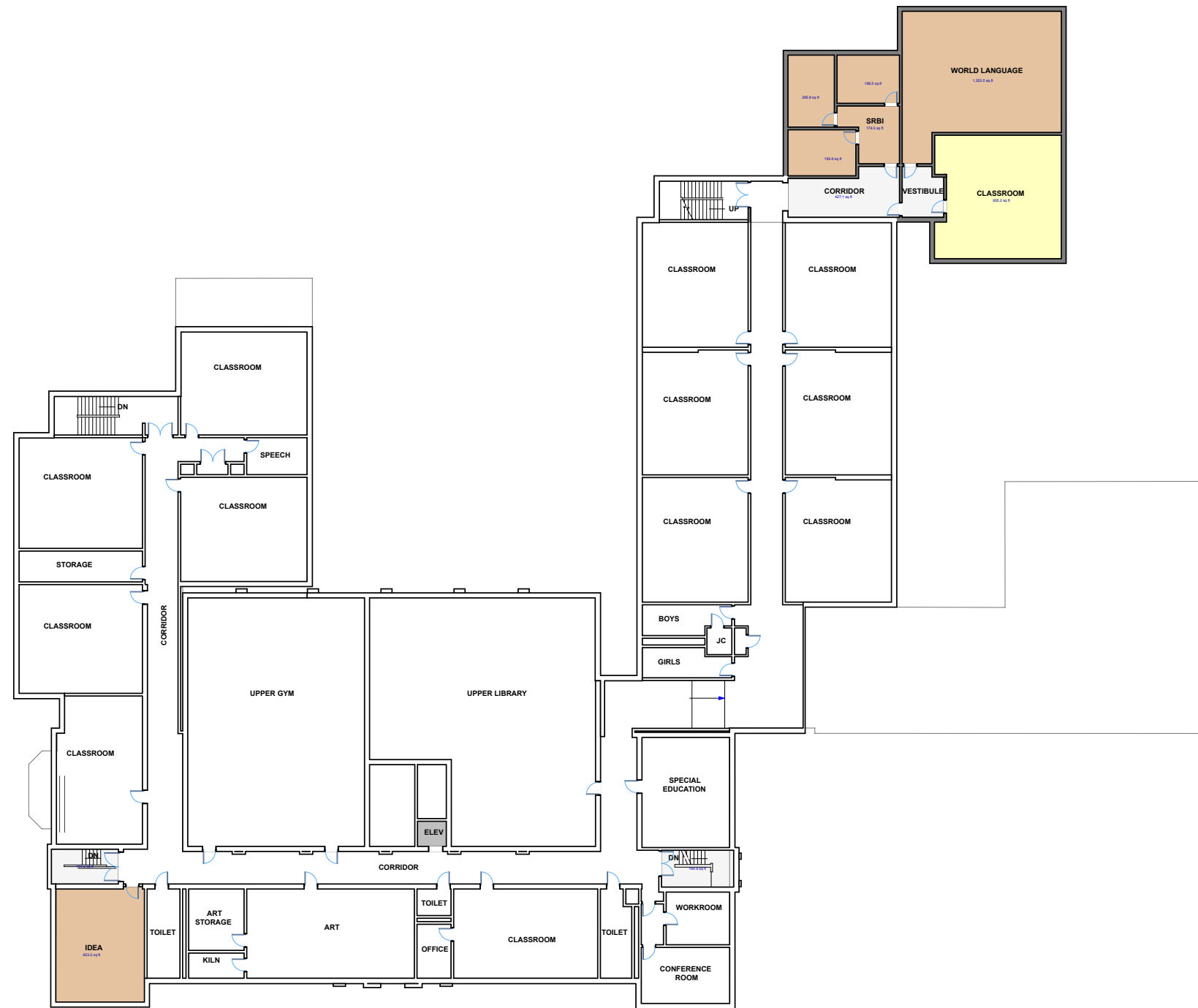
1ST FLOOR PLAN

SCALE: 1/16" = 1'-0"

HOLMES ELEMENTARY SCHOOL

DRAFT: 2-19-21

- GENERAL CLASSROOMS
- SPECIALIZED LEARNING (ART, COMPUTER LABS)
- CORE SPACE (AUDITORIUM, GYM, CAFETERIA, MEDIA CENTER)
- ADMINISTRATION/FACULTY
- BUILDING SUPPORT SPACES (TOILETS, MECHANICAL, STORAGE)
- CIRCULATION, STAIRS, ELEVATORS



2ND FLOOR PLAN

SCALE: 1/16" = 1'-0"

ROYLE ELEMENTARY

DRAFT: 2-19-21

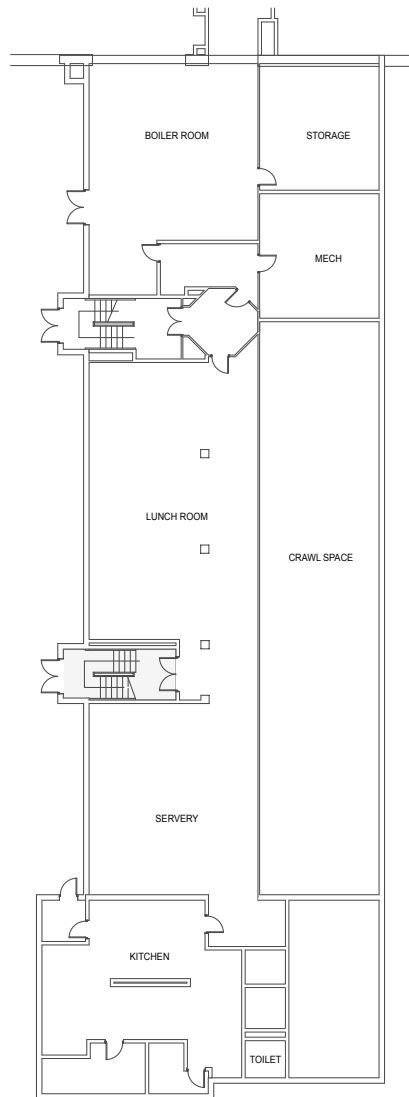
BUILDING ADDITION NEW INTERIOR RAMP & RENOVATIONS

EXISTING ENROLLMENT (2020) - 358 STUDENTS
PROJECTED ENROLLMENT (MAX) - 393 STUDENTS

EXISTING GROSS SQUARE FOOTAGE
LOWER LEVEL - 6,716 SQFT
1ST FLOOR - 32,790 SQFT
PORTABLE CLASSROOMS - 2,513 SQFT
2ND FLOOR - 17,455 SQFT
TOTAL GSF - 59,474 SQFT

PROPOSED GROSS SQUARE FOOTAGE
LOWER LEVEL - 6,716 SQFT
1ST FLOOR - 32,790 SQFT
REMOVED PORTABLE CLASSROOMS - (0) SQFT
LESS DEMOED MEDIA CENTER - (3,830) SQFT
LESS DEMOED CLASSROOM WING - (5,034) SQFT
FIRST FLOOR ADDITION - 12,575 SQFT
2ND FLOOR - 17,455 SQFT
TOTAL GSF - 60,672 SQFT

- GENERAL CLASSROOMS
- SPECIALIZED LEARNING (ART, MUSIC, IDEA, SRBI)
- CORE SPACE (AUDITORIUM, GYM, CAFETERIA, MEDIA CENTER)
- ADMINISTRATION/FACULTY
- BUILDING SUPPORT SPACES (TOILETS, MECHANICAL, STORAGE)
- CIRCULATION, STAIRS, ELEVATORS



LOWER LEVEL
SCALE: 1/16" = 1'-0"

1ST FLOOR
SCALE: 1/16" = 1'-0"



SECOND FLOOR
SCALE: 1/16" = 1'-0"



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APPENDIX 2: INFRASTRUCTURE COSTS TABLES

Hindley Elementary School: Infrastructure Costs – Capital Plan and KG&D

Description	Priority 1 – Capital Plan	Priority 2 – Capital Plan	Priority 3 – Capital Plan	KG&D
Replace 10 Exterior Doors and Hardware		\$45,000		
Replace Hot Water Heater		\$40,000		
Provide New Corridor and Classroom PA Speakers and PA Wiring to Amp in Server Room		\$95,276		
Provide New Powered Ventilation (ERU) for the Main Office and 16 Classrooms			\$1,319,046	
Provide New Air Handling (AHU) with Coils - Gym			\$577,083	
Provide New Air Handling (AHU) with Coils – Café			\$577,083	
Add Occupancy Sensors in All Classrooms and Offices that do Not Have Automatic Shut-Off Control			\$24,732	
New Roof on Gym, Common Room, 1976 & 1996 Additions, including some repair/repointing of brick		\$775,000		
Renovate and Irrigate Playing Field			\$500,000	
Replace Boilers, Burners, Pumps in Boiler Room & Convert to Hot Water Heat		\$2,500,000		
Add 6 Convenience and 4 Quad Receptacles in Each Classroom (27)			\$214,345	
Repair Plaster Ceiling & Paint – Stair A				\$3,298
Repair Plastic Ceiling – Roof Access Room				\$1,237
Replace East Door – Café – Backstage – Weatherproof				\$1,466
Stair A & B – Repair Exterior Window & Repaint				\$43,974
Exterior Brick Repair & Repoint – Gym Storage Bldg				\$6,596
Replace Plumbing Fixtures in the Original Building (Qty. 20)				\$164,881
TOTALS (\$6,889,017)		\$3,455,276	\$3,212,289	\$221,452

Items excluded: Priority 1 items are included in previously-approved 2021-22 budget: (Curb Sidewalk & Blacktop Replacement – Bus Loop, New Emergency Lighting at Each Egress Door, Provide New Wireless Clock System).

Items deleted: Library items (Replace Ceiling Mounted Unit Ventilators in Library, reduced roof project to eliminate Library roof SF), Provide Corridor Ventilation (Qty. 3), other KG&D items

Holmes Elementary School: Infrastructure Costs – Capital Plan and KG&D

Description	Priority 1 – Capital Plan	Priority 2 – Capital Plan	Priority 3 – Capital Plan	KG&D
Replace Make-Up Air Unit in Kitchen		\$45,000		
Provide New Corridor and Classroom PA Speakers and PA Wiring to Amp in Server Room		\$102,605		
Replace 1930's Wing Toilet Room Fixtures			\$90,000	
Add 6 Convenience and 4 Quad Receptacles in Each Classroom (27)			\$164,881	
Build New Parking Lot on Former Curtis Property			**	
Install New Roof on 1996 Addition			\$650,000	
Misc. Masonry Restoration & Sealant on Original Building			\$55,000	
TOTALS (\$1,107,486)		\$147,605	\$959,881	

Items excluded: Priority 1 items are included in previously-approved 2021-22 budget: (Design HVAC System at Original Building, New Emergency Lighting at Each Egress Door, Provide New Wireless Clock System, Construction of New HVAC System, New Boilers, Converting Steam to Hot Water).

Items deleted: Priority 1 HVAC improvements and Priority 3 Misc. Masonry Restoration are generally inclusive of many KG&D line items; other KG&D items (skylight, backflow preventers, electrical service testing and main distribution)

**Site items carried in a separate overall cost summary

Royle Elementary School: Infrastructure Costs – Capital Plan and KG&D

Description	Priority 1 – Capital Plan	Priority 2 – Capital Plan	Priority 3 – Capital Plan	KG&D
Provide New Corridor and Classroom PA Speakers and PA Wiring to Amp in Server Room		\$87,947		
Upgrade Gym Ventilation + Hot Water			\$381,104	
Upgrade Cafeteria Ventilation + Hot Water			\$381,104	
Upgrade Common Room Ventilation + Hot Water			\$381,104	
Convert Existing Boilers from Steam to Hot Water		\$1,146,447		
Add 6 Convenience and 4 Quad Receptacles in Each Classroom (20)			\$164,881	
Repair & Repoint Masonry Exterior – Auditorium, South & East Facades				\$17,589
Repair & Repoint Masonry Exterior – West Façade				\$41,042
TOTALS (\$2,601,218)		\$1,234,394	\$1,308,193	\$58,631

Items excluded: Priority 1 items are included in previously-approved 2021-22 budget: (Roof on 1996 and Original Building, New Emergency Lighting at Each Egress Door, Provide New Wireless Clock System).

Items deleted: Library items & 1950's Classrooms items (Replace Windows in Library, toilets and ventilation in 1950's classrooms); other KG&D items